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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,191	07/25/2006	Christian Walsdorff	293600US0PCT	5400

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

WITHERSPOON, SIKARL A

ART UNIT	PAPER NUMBER
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1621

NOTIFICATION DATE	DELIVERY MODE
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04/10/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/587,191	Applicant(s) WALSDORFF ET AL.	
	Examiner Sikarl A. Witherspoon	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/25/06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (US 6,127,310), Aoshima et al (US 4,518,796), and Wilhelm (US 3,940,329), all in combination, and further in view of GB 1340612.

The claims are drawn to a catalyst composition comprising palladium and bismuth, and/or gold, rhodium, silver, platinum, cobalt, calcium, and chromium, supported on a silicon carbide or steatite carrier, and to a method of using said catalyst in a dehydrogenation reaction to produce unsaturated carbonyl compounds.

Brown et al teach a catalyst comprising palladium and bismuth supported on alumina (example IV, and table VII). Aoshima et al teach a catalyst comprising palladium, bismuth, and sodium, wherein calcium can be employed in place of sodium (abstract; col. 4, lines 11-22). Wilhelm teaches a catalyst comprising platinum, rhodium, bismuth, and chlorine, wherein palladium can be employed in place of platinum, said catalyst being supported on a porous material that includes silicon carbide (col. 5, line 40 to col. 6, line 69, and col. 18, lines 1-7).

Each of the above references teaches a catalyst composition comprising palladium and bismuth as the primary catalytic metals. Each reference also teaches

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that each catalyst may be doped with, or may additionally contain another metal; either an alkali or alkaline earth metal, or a transition metal. Therefore, the catalyst composition(s) recited in the instant claims are rendered obvious in view of the combined reference teachings, since it would have been obvious, based on the teachings of said references, to include an additional metal in a catalyst composition already comprising palladium and bismuth, in order to enhance catalytic activity and/or regenerate catalytic activity to the palladium/bismuth catalyst. Absent a showing of unexpected results, the mass ratio of respective elements making up said catalysts is of no patentable import, since a person having ordinary skill in the art would have adjusted these ratios to arrive at a catalyst having the most desirable reactivity and/or regenerability.

The references cited above do teach the use of said catalyst to produce alpha, beta-unsaturated compounds; however, GB 1340612 teaches the use of a palladium catalyst in a process for dehydrogenating a saturated ketone to the corresponding unsaturated compound (see entire document). It therefore would have been obvious to a person having ordinary skill in the art to modify the palladium catalysts taught in GB 1340612 by adding to it a metal as taught by Brown et al, Aoshima et al, and Wilhelm, since these references as combined teach that catalytic ability can be enhanced accordingly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikarl A. Witherspoon whose telephone number is 571-272-0649. The examiner can normally be reached on M-F 8:30-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sikarl A. Witherspoon/
Primary Examiner, Art Unit 1621